**Google Cloud Fundamentals: Getting Started with Compute Engine**

**Lab Objectives**: Be able to create virtual machines (VMs) instances and connect to them, and create connections between the instances.

**Task 1: Sign in to the Google Cloud Platform (GCP) Console**

login into Google Cloud using the command below

gcloud auth login

select your project with the command below

gcloud config set project PROJECT\_ID

**Task 2: Create a virtual machine**

The command below will create a VM named my-vm- in the region us-central11-a of deafault machine type n1-standard-1 with boot disk image Debian GNU/linux 9 (stretch).

gcloud compute instances create my-vm-2 --zone=us-central1-a --machine-type=ni-standard-1 --tags=http

Tagging the VM with an http tag for firewall rule to allow http access.

gcloud compute firewall-rule create default-allow-http --direction=INGRESS --priority=1000 --network=default \

--action=ALLOW --rules=tcp:80 --source-ranges=0.0.0.0/0 --target-tags=http

**Task 3: Create another virtual machine**

Set the default zone to the one different from that of the my-vm-1 with this command

gcloud config set compute/zone us-central1-b

To create a VM instance named my-vm-2 in that zone, execute the following command:

gcloud compute instances create "my-vm-2" --machine-type "n1-standard-1" --image-project "debian-cloud" \

--image "debian-9-stretch-v20190213" --subnet "default"

**Task 4: Connect between VM instances**

SSH into th VM named my-vm-2 with the following ssh command

ssh my-vm-2

Use the ping command to confirm that my-vm-2 can reach my-vm-2 over the network:

ping my-vm-2

press Ctrl+C to abort

Use the ssh command to open a command prompt on my-vm-2:

ssh my-vm-2

At the command prompt on my-vm-2, install the Nginx web server:

sudo apt-get install nginx-light -y

Use the nano text editor to add a custom message to the home page of the web server:

sudo nano /var/www/html/index.nginx-debian.html

Use the arrow keys to move the cursor to the line just below the h1 header. Add text like this, and replace YOUR\_NAME with your name

Hi from YOUR\_NAME

use Ctrl+O and Ctrl+X to save and exit

Confirm that the web server is serving your new page. At the command prompt on my-vm-2, execute this command:

curl http://localhost/

exit

To confirm that my-vm-2 can reach the web server on my-vm-2, at the command prompt on my-vm-2, execute this command:

curl http://my-vm-2/